# THE

# EUGENICS REVIEW

Editorial Offices: The Eugenics Society 69 Eccleston Square, London, S.W.1. (Telephone—Victoria 2091.)

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"Eugenics is the science which deals with all influences that improve the inborn qualities of a race; also with those that develop them to the utmost advantage."—Sir Francis Galton, 1904.

# NOTES OF THE QUARTER

# Population and Agricultural Resources

To mark its tenth anniversary, F.A.O. has enlarged the scope of its current annual report\* so that it deals mainly, not with the immediate situation and outlook, but with the whole of the period since the war ended in 1945 and with the major problems that lie ahead of us. A considerable body of evidence has thus been provided for the discussion of the subject of world population and resources —a discussion which, important as it is, has all too often been hampered by lack of adequate facts and figures. The last ten years have seen many heartening developments, and the Director-General of the Organization is able to speak in his foreword of "more rapid and widespread advances in the technical methods of agriculture, forestry and fisheries than in any previous decade "; "remarkable changes in the social and

The answers to some of these questions are given in an illuminating series of charts. In one set of diagrams are shown the relative growths, expressed in the form of percentage indexes with the prewar level as base, of population, agriculture, manufacture and mining respectively. The data unfortunately exclude the Communist bloc but, for the remainder of the world, progress in nonagricultural production is seen to have outstripped population growth handsomely. Manufacture (index about 190) is now 60 per cent, and mining (index nearly 160) about 30 per cent better in relation to population (index 120) than in the later 1930s. Agriculture, however, (index about 120) has increased only in approximate proportion to population. In another analysis the total volume of agricultural production per head is expressed as a ratio of the prewar average; most of the regions of the world have exhibited a rising trend in the ratio during the past eight years, but in only about half—North America, Western Europe. Africa and the Near East—is the ratio for 1954-5 in excess of unity. For the whole world the ratio, after being as low as .85 after the Second World War, has now recovered to

economic approach to agriculture "; "large-scale schemes of land reform"; "co-ordinated planning and programming"; attempts to ensure "economic security" for the cultivator; and the fixing of "minimum levels of nutrition for children and mothers." These are cheering items; but what about their relationship to the continuing growth in the numbers of mouths to be fed? Are the new measures adequate to the world's enormous needs? Are we really better off now or have the advances been largely swallowed up in making good the devastation of war?

<sup>\*</sup> The State of Food and Agriculture. Review of a Decade and Outlook. Food and Agriculture Organization of the United Nations. Rome, 1955. Pp. xi + 236. Price 12s. 6d.

about I oI but has yet to advance materially beyond the standard of the 1930s. The figures for average calorie intakes, shown in another part of the report, appear to be still below prewar levels in most regions, and this is especially serious in the Far East.

The closeness of the association between population growth and increases in food production is partially attributable to the fact, disclosed in the report, that over large areas sluggishness in the effective demand for farm produce, rather than inability to expand output, has been the limiting factor in agricultural production. Only if some way can be found of mitigating the extreme poverty of considerable sections of population—perhaps by improved social distribution of wealth—will the most effective stimulus to increased output be provided. Whereas, therefore, figures can be given for the expected further increase in population in the next few years, "the factors determining the level of ter caput demand are influenced by so many variables that any long-term estimate is bound to be largely guesswork." These variables are considered in the report, and possible methods of expansion are discussed, without however reaching any simple conclusion. To-day's problems are perhaps even more difficult to solve than those of ten years ago, but "on the whole governments can take a longerterm view than before without being unduly preoccupied with pressing day-to-day difficulties." They should study the merits and demerits of the postwar policies of those countries that have progressed the farthest and, by learning from such experience, find the best ways to encourage the future development of agriculture, forestry and fisheries.

# Population Pressure in Egypt

THE unique shape and the peculiar geographical surroundings of Egypt—a flat elongated country flanked by deserts—give it some of the features of an island, the encompassing medium being not sea but sand.

A population problem with features in

common with those of Mauritius\* is described in a valuable report of the Economic Subcommittee of Egypt's National Population Commission. Egypt's population at the end of the eighteenth century was estimated as about  $2\frac{1}{2}$  to 3 million, and in the middle of the nineteenth as about  $4\frac{3}{4}$  million. By the census of 1897 some 10 million people were numbered. Official estimates put the population last year at some 22 million. The rate of increase is accelerating. From 1917 to 1937 the natural rate of growth was 1.2 per cent per year; in the period 1937-47 the figure was 1.9 per cent; and in the ensuing six years (1948-53) it is thought to have risen to 2 per cent. In 1951, the birthrate is given by UNO's Demographic Yearbook (1954) as 44.7 per thousand, which is higher than the four quinquennial averages for the years 1920-39 and the highest of any single year since 1939; and according to the Economic Sub-committee, the death-rate has fallen from the figure of 28.6 in 1945 to that of 19.3 in 1951 which is the lowest ever recorded. Infantile mortality fell from 165 per thousand live births in 1937 to 130 in 1950.

Of these movements the Sub-committee says:

In the light of recent evolution in the birthand death-rates, it is possible to project a population of 28 million in 1965. But if the birth-rate were to remain at its present level and the death-rate to go on declining for some time to the rates ruling in Western Europe, the fertility rate remaining unchanged, the increase in the population would be still greater. . . . In any case, the facts indicate that there is a possibility of a great increase in the population in the near future, if circumstances are favourable.

The report surveys Egypt's economic resources. There was a spectacular rise in the national income during the years 1950 and 1951 when the Korean war raised the prices of agricultural products including cotton. But the boom conditions were short-lived; they lasted but eighteen months. By 1953 cotton exports had declined to

<sup>\*</sup> See p. 235 for a discussion of the position in Mauritius.

61 per cent of the 1951 figure; and to-day Egypt's cotton economy is somewhat precariously based, depending on uncertain factors in the U.S.A.

The price of Egyptian cotton, as a result of inflationary world trends and the shortage of available world supplies, rose after World War II; however at present the U.S.A. has large stocks of cotton and our future reliance on this staple product will depend on the policy which the U.S.A. will adopt in disposing of their surplus stocks.

In the meanwhile, the Sub-committee say, "growing industry has absorbed but a very small percentage of the increase in population, the balance remaining on the land." Here there is increasing pressure. The surplus agrarian population is now estimated at about five million. Midget holdings are increasing.

Whereas a feddan (an Egyptian measure slightly exceeding an acre) of agricultural land kept two people at the beginning of the present century, it now has to keep about four people. The unavoidable consequence of the foregoing is a gradual decrease in the number of working days on the land which now do not exceed an average of 150–180 days per year.

It would thus seem that the Egyptian land worker spends more than half the year idle.

Hopes of expanding agricultural production are raised by large-scale irrigation schemes of which the most ambitious is known as the High Dam project. This "is considered the first big endeavour for the expansion of agricultural land since the beginning of the present century." But the Sub-committee points out that the benefits accruing from these schemes may be lost if numbers continue to increase.

However, the great expectations of this project will be somewhat frustrated by the expected increase of population of between 5 and 6 million during the time that it will take to carry out the project.... When the High Dam and reclamation works are finally completed the population will have reached 28 million... so that all that can be hoped for is that the rapid fall in the standard of living would be halted.

In a concluding summary the Sub-committee declares that "the rapid growth in population is in itself an obstacle to economic development and the spread of

public services in Egypt; it also prevents the great majority of the people from getting an income which would ensure a standard of living compatible with the hopes that they had fostered with the coming of the new régime."

### **Egypt and Mauritius Compared**

The positions of Egypt, as reported by the Economics Sub-committee of that country's National Population Commission, and of Mauritius, as seen by a majority of its Population Committee of twelve, have certain features in common. The relatively small population of Mauritius (birth-rate in 1951) 47.5; death-rate 14.9; excess of births over deaths 32.6 per thousand) is increasing faster than that of the forty-times larger population of Egypt (birth-rate in 1951 44.7; death-rate 19.3; excess of births over deaths, 25.4). Both committees survey the possibilities of migration—to Madagascar (which is both underpopulated and underdeveloped) for Mauritians, and to Irak and the Sudan for Egyptians. But neither committee regards emigration as an adequate solution. The Egyptian committee say that no reliance can be placed on the possibilities (of emigration on a large scale to Irak and the Sudan) " as Irak has not shown up till now any desire to attract immigrants.... All that we can predict is the continuation of the emigration of university graduates and technical workers to Arab countries and to Libya." And the Mauritian Committee say that "emigration should not be relied upon as a permanent remedy. . . . While it would no doubt offer a temporary breathing space, the real solution rests in the control of fertility."

It is in their approaches to the last-named issue, the control of fertility, that the two reports most conspicuously differ. The Egyptians do not refer to it at all. Their report does not go beyond the provision of a diagnosis stressing the inadequacy of the solutions that have been proposed—namely, emigration, industrialization, exploitation of mineral wealth and expansion of cultivable areas. The arguments all point to the need of reducing the rate of increase. But this

solution is not explicitly stated. The reader is expected to draw the inevitable conclusion himself, which he can scarcely fail to do.

The Mauritian report, on the other hand, deals with this matter (the control of fertility) at length and in much detail. Copious extracts from reports on such overpopulated places as India, China, Hong Kong, Japan, Malaya, Singapore and Barbados fill twelve of the report's fifty-five pages. An appendix dealing with the ethical, humanitarian and psychological aspects of family planning fills another three pages of smaller print. And of three main recommendations one is that "the Government should, if necessary, earnestly consider inviting the International Planned Parenthood Federation of London and/or the UNESCO to give advice and assistance."

It is not surprising that this unusually forthright advocacy by Mr. Herchenroder's Committee evoked some opposition. Two of the twelve members record dissentient opinions on the issue of family planning; and the Bishop of Port Louis publishes in the journal La Vie Catholique of July 10th, 1955, a pastoral letter affirming his "radical opposition" to this recommendation. It is, indeed, remarkable that such a large measure of agreement should have been reached on an issue which, to a mainly Catholic community, must seem acutely controversial.

#### World Resources

SIR CHARLES DARWIN writes: Last June a conference with the title "Man's Rôle in Changing the Face of the Earth" was held at Princeton, N.J., under the auspices of the Wenner Gren Foundation for Anthropological Research. It was attended by some sixty or so specially invited members, of whom the majority were Americans, but six or seven came from England, a few more from Europe and one from India. The meeting lasted a week with two three-hour sessions every day. The members were very generously entertained by the Foundation, and indeed during the weekend they were given an opportunity to see the sights of New York, or alternatively they could make various local excursions.

Eugenics was not part of the field discussed, but most of the subjects were very much of interest to the eugenist. Past, present and future were all considered. A full report of the discussions and of the written papers that preceded the meeting is to be issued in due course, and it is not possible to describe here the extremely interesting views expressed over such an enormous range of subjects.

It may however be noted that there appeared to be a rather important cleavage of opinion dividing members into two groups, especially as concerns future prospects. This was particularly so among the Americans, who briefly described the two parties as the conservationists and the technologists. The conservationists hold that the earth's resources are being expended at a fantastic rate, and that at no distant date, if this continues, our whole way of life will have to go seriously downhill in consequence. The technologists, on the other hand, are optimistic about the future. They hold that man has made brilliant new inventions whenever they are needed-witness for example the discovery of atomic energy which has just come at the time when coal threatens to be exhausted. They hold that there is no limit to these processes of invention. One leading exponent of this view characterised the opposing views in the phrase "You're being neolithic." It would not be just to make any pronouncement here between the rival parties without considering all the documents of the meeting, but it was rather surprising to at least one of its members to find how little consideration most of the members gave to the formidable population problems that will so soon face the world. It is true that this was not strictly speaking part of the agenda, but the same absence of interest tended to show itself in the private discussions in the intervals between meetings, which were a most valuable feature of the conference.

# A Marked Postwar Decline in Italian Fertility

Mr. P. R. Cox writes: Since the years immediately following the end of the Second

World War there has been a fall in the birth rate in nearly all the countries of Western Europe: for many of them the extent of the diminution has been as much as 20 per cent. Nevertheless, if the birth rate in each country to-day is compared with the corresponding figure for the early 1930s it may be seen that the current level is the higher of the two in most instances. The two striking exceptions to this rule are Italy and Spain; fertility in both these countries has fallen by 25 per cent or more in the last two decades. In Spain the decrease occurred mainly before the war; in Italy, however, it has taken place largely in the past six years, and births are now at a lower frequency than ever before. In this respect the Italian experience is unique; recent developments do not represent merely a reversion to an alreadyestablished level after a temporary rise, but indicate a move to a point well below any former standard. It is thus of more than usual interest to learn that an inquiry has been made in some detail into the manner in which the fall has occurred.

In an article in the current (July-September) number of *Population*, the official organ of the French Institute of Demographic Studies, MM. Henry and Pressat have made a study of recent Italian fertility trends, using the methods of analysis considered to be the most appropriate to-day. The first of these measures the number of first births in relation to the number of married women without children, the number of second births in relation to the number of married women with one child only, and so on. This process, even though capable of being carried out only approximately (it is necessary to assume that the extent of spacing of births by married couples is the same as in Czechoslovakia before the war) is effective in showing the extent to which family building is affected by political and economic disturbances. While the temporary influences of such events as the Abyssinian and Second World Wars assume substantial importance in the analysis, an underlying downward trend in the chances of birth of children of all orders except the first is, however, also discernible. This trend is sharply marked for

the high orders, such as seventh and eighth children, and is supported by the observation that birth rates have fallen in the southern part of the country—the region where large families are traditionally the most common.

A second method of statistical analysis adopted in the article has been to compare, for given lengths of married life, the numbers of children born to couples married at various times. Almost without exception, this approach shows that the later the year in which marriage occurred the lower was the family size at all stages. The analysis is necessarily rather inconclusive, for it is confined to the first seven years of marriage at most; that there might be some compensatory movement in the figures at the higher marriage durations is not impossible.

The rapid downward movement of the Italian birth rate since 1947 appears to have been arrested in 1953 and 1954. For these last two years detailed statistics are not available, but it appears that an improvement in economic conditions may have had an encouraging effect upon both marriages and births. To what extent any recovery may go is difficult to foresee. It would not be surprising to find that the more fertility declines the more sensitive it becomes to day-to-day changes in environment. The prospect for the immediate future may thus depend to some extent upon one's view as to the progress of the standard of living.

## Family Size in America

MR. C. W. USHER writes: An interesting trend in the size of families of American college graduates is brought to light in the June (1955) issue of *Population Bulletin* published by the Population Reference Bureau, Inc., of Washington D.C.

It seems that the fertility of graduates is showing a definite increase. Graduates of more recent classes already have families almost as large as those of graduates of a generation ago. This may be accounted for by improved economic conditions since 1945, but it is suggested that a real change in the attitude towards children may also be

involved. Men who graduated in 1945 now average 1.73 children per graduate, which represents a gain of 70 per cent over graduates of 1936. Women show an increase of 51 per cent for the same classes. The highest rates of all are recorded by the graduates of the Mormon colleges and this is attributed to the high value which the Mormon religion places on children and large families.

A slightly higher proportion of graduates marry who have attended a co-ed. college than those of segregated colleges. A total of 19,253 graduates responded to the questionnaire, which represents 65 per cent of available graduates and 55 per cent of all graduates. The study concludes with the words "The continuation of current trends and an eventual equality of reproduction throughout the entire population would be very good news a generation hence."

#### **Nobel Prize-winners for Natural Science**

Nobel prize-winners for Natural Science are individuals who have shown outstanding intellectual ability and originality. Their family background and their fertility are of great eugenic interest. In a recent article in The British Journal of Sociology\*, Mr. Léo Moulin has reported on the information he has been able to collect on the 164 prizewinners and joint prize-winners in Physics, Chemistry and the Medical Sciences between 1901 and 1950. There are thirty-nine German-born, thirty-one British-born. twenty-seven born in the United States, sixteen born in France, and fifty-one born in other European countries. All but four of those from the United States were awarded prizes after 1925. Four born in Russia have been excluded, since no Russian has been allowed to receive a prize since the revolution. Three of the 164 are women, Polishborn Madame Curie, her daughter, Frenchborn Madame Joliot-Curie, and Austrianborn Mrs. Cori (now a United States citizen).

Much of the information on the families of these outstanding men and women is unfortunately incomplete. In seventy-seven instances the father's occupation is known and, in the great majority, was one of the higher professional or administrative services; German army officers and Scottish clergymen are prominent. All of the four fathers who were manual workers were skilled, a watchmaker, a gunsmith, a cooper and a forester. In the years under review thirty-seven of the 164 prizes were given for the medical sciences and the fathers of at least ten of the prize-winners in this field were also in the medical profession. In two instances both a father and son and in one instance both a mother and daughter have been prize-winners.

Information on the fertility of the prizewinners is also incomplete. The age at marriage is known for sixty-nine of them and averages about thirty years. The number of children is known for fifty-seven and between them these fifty-seven had 164 children, an average of 2·9 per family. One winner in 1926 (a Swede) and another in 1929 (a German) had nine children. If these fifty-seven are representative of the whole group (Mr. Moulin gives no information on this) then their fertility would be well above replacement rate.

These fertility estimates may be compared with those for holders of the British Order of Merit reported in 1944 by the late Mr. B. S. Bramwell in the Eugenics Review\*. The order was founded in 1902 and is limited to twenty-four living holders. Mr. Bramwell considered their fertility woefully small. He had information on the fertility of all but two of the seventy holders of the order. Ten were unmarried and fifteen were married but childless. The remaining forty-three had 125 children between them. The average number of children, per individual, was therefore 1.8 and, per marriage, was 2.2. The group therefore were not far short of replacing themselves and had in fact a fertility which is close to the average in England and Wales for couples married since 1925. These notable men, together with others in the professional and administrative class, may have adopted the small family

pattern rather earlier than the rest of the population. They are not notably infertile by present standards, though eugenists would like them to have had larger families.

### The Tokyo Conference

The Fifth International Conference on Planned Parenthood was held at Tokyo from October 24th to 29th, 1955. Fellows and Members of the *Eugenics Society* who were present included Dr. C. P. Blacker, Mrs. Vera Houghton, Dr. Margaret Hadley Jackson, Dr. A. S. Parkes, and Dr. Helena Wright. The paper on the history of the family planning and eugenic movements which Dr. Blacker gave at Tokyo appears on page 225 of this Review; we hope to print a full report of the Conference in our April issue.

#### The Council

THE CHAIRMAN writes: At its October meeting the Council reviewed the usual summary of elections to Fellowship and Membership, and the Society's losses by resignation and by death. This led to a discussion of the further recruitment of new members. It was observed that the recent campaign for new additions to the Society's strength had been only markedly successful in the area of personal canvass amongst friends and acquaintances. All other means were in the main unproductive. It is hoped that all Fellows and Members will keep the personal canvass well in mind. followed an examination of the Society's policy, and questions were raised whether or not there should be a reorientation. The two principal different points of view set forth were:

- (a) That the greatest gain to the advancement of eugenics was by direct research, assisting and influencing like minded societies, associations and groups, and direct approach to government departments, local authorities and the like.
  - (b) Perhaps the more generally arduous

task of educating the public by relatively simple explanations of eugenics at lectures and pamphlet distribution.

The Council will welcome the views of Fellows and Members and an indication of what contribution individuals are prepared to make to this problem. The whole question will be kept under review by the Council.

The Council welcomed the news that Mr. Frederick Osborn, Secretary of the American Eugenics Society, would give the Galton Lecture in 1956, and would speak of some aspects of voluntary selection on births in different cultures.

#### **Our Contributors**

DR. H. C. MAURICE WILLIAMS, O.B.E., O.St.J., M.R.C.S., L.R.C.P., D.PH., Honorary Fellow of the American Public Health Association; Member of the Inner Temple.

Dr. Maurice Williams was educated at Mill Hill School, St. Bartholomew's Hospital and Inner Temple. He holds the position of Medical Officer of Health to the County Borough and Port of Southampton, a position he has held since 1931. He is a Past President of the Society of Medical Officers of Health and Past Chairman of the Royal Society of Health. He is also a member of the Councils of the Queen's Institute and the Central Council for Health Education. He is Vice-Chairman of the Nursery Nurses Examination Board, and Honorary Secretary of the Association of Sea and Air Port Health Authorities of the British Isles.

His publications include "Health Administration at Ports," "Typhoid inoculation of civilian population," 1940. "Cutaneous and conjunctival diphtheria," 1943. He has also contributed a number of articles to *The British Medical Journal*, The Lancet, Public Health, etc.

MR. J. G. C. BLACKER is a graduate of Balliol College, Oxford, where he read Modern History. He is now doing post-graduate work in demography at the London School of Economics.

#### **OBITUARY**

The deaths of Lord Horder and Mrs. Neville-Rolfe were briefly recorded in the October number of the Eugenics Review. We are now glad to print some personal appreciations.

#### The Lord Horder, G.C.V.O., F.R.C.P.

MRS. M. A. PYKE writes: Although Lord Horder achieved such great success and so many honours, there was in him a rebel touch. He was certainly no "yes man" and perhaps it was this quality which finally determined his acceptance of the office of President of the National Birth Control Council, as the Family Planning Association was called when it was founded twenty-five years ago.

Lord Horder was a wise and far-sighted man, courageous, kind, with great understanding of human beings and an endearing sense of humour. His intelligence, his heart and his integrity brought him to support the cause of family planning and no consideration of his progress on the highway to success deterred him as it might have deterred many in his position.

And his support was not passive—Lord\* Horder was no sleeping President. He led deputations, addressed members of Parliament, gave money, advice and criticism, spoke and wrote on behalf of the Association. He tilted with gusto, and I think enjoyment, against stupidity and prejudice. He did great service to the F.P.A. and he will be greatly missed by all his fellow workers.

A MEMBER OF COUNCIL writes: Lord Horder was a gardener, deeply cherishing the soil of his land and the plants in his garden. He fostered all things which grew freely under his hand, so that the dictionary meaning of "foster," which is "to tend affectionately," was proper to him and his weekend work at Ashford Chace. He was also a diagnostician of the rarer plant diseases, and his advice was sought from far and near. Not lightly did he allow professional engagements in London to encroach on his needed rest and gardening pleasures of Saturday and Sunday.

But, if Horder rightly defended his gardening days at Ashford Chace, that did not mean that he would not answer a serious Years ago, my boy, at school in Hampshire, was taken sharply ill, and the local medical treatment seemed to be out of line. With some hesitation I approached Horder who was then my own wise physician. With a flash of urgency, he turned to me with "What does a Saturday matter? A child's vital organ is in question: all his future life may be affected." Horder saw the boy on Saturday morning, on Sunday morning, and en route to London by car, on Monday morning, had a medical report telephoned to him on the Wednesday, and again saw him during the following weekend.

DR. CYRIL BIBBY writes: I came to know Lord Horder fairly late in his life. His energy was not bustling but his quiet efficiency was immensely impressive. When he was Chairman and I was Honorary Secretary of the Family Relations Group we worked closely together, and never did his attitude hint at what was the truth—that he was a man of eminent distinction and I was a youngster low down the ladder. The kindness with which he helped in difficulties, the patience with which he was ever ready to discuss a proposed line of action, the friendliness with which he suggested possible actions of which I had not thought, all combined to produce in me an affection deeper than would in these days be thought proper to express in print.

## Mrs. Neville-Rolfe, O.B.E.

DR. CYRIL BIBBY writes: Obituary appreciations, naturally, are in general written by those who have known their subjects as fellow-workers over a long period of years. Sometimes, however, facets of character shine most brightly in the recollection of one who is of a much younger generation and whose relationship was always that of a very junior colleague.

It was not until 1940 that I first met Mrs. Neville-Rolfe, and that was in circumstances which I later learned to have been characteristic of her bustling energy. Receiving a

telegram making an appointment at a hotel in the Midlands, I set out to meet the General Secretary of the British Social Hygiene Council, who thus fitted in an interview with the Council's future Education Officer along with a whole host of other engagements. During the next year and a half, I learned to admire the enormous energy with which Mrs. Neville-Rolfe managed each day to do two days' work, and the image of her discussing policy whilst also dictating a memorandum into her dictaphone and conducting a telephone conversation with a colleague is indelible. She could be ruthless of course—how otherwise could she have done so much that she was determined to

have done?—but her great virtue was the way in which she trusted her colleagues to get on with the job. No doubt she might be sharp with slackness, but anyone who was working well could count on her support up to the hilt. It would be dishonest to pretend that Mrs. Neville-Rolfe was always easy to work with, but no one could work with her for long without developing a tremendous admiration for her self-sacrificing devotion to whatever cause she made her own.

In Mrs. Neville-Rolfe we have lost a pioneer who has served the cause of progress well, but she has left behind her memories which for many a year will continue to serve that cause.

# EUGENICS QUARTERLY

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DECEMBER 1955 Vol. 2 No. 4

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Published by AMERICAN EUGENICS SOCIETY 230 Park Avenue, New York 17, N.Y. \$3.00 a year